Environmental Impact Assessment
Of

Proposed Drains (Revised)

Kaliakoir Municipality
Gazipur

1. Introduction:

Kaliakoir Municipality has proposed to construct road, drain at different location funding from the Municipal Governance and Services Project (MGSP) of BMDF. These proposed drains are branches of main drains (D3, D9). The objective of the proposed sub-project is to improved drainage system to the urban dwellers with ensuring environmental compliances as per GoB and World Bank. The Kaliakoir Municipality has already submitted an Environmental Assessment (EA) Report in accordance with ECR 1997of DoE and the World Bank Environmental and Safeguards Policies.

2. Objectives and justification of selecting of this subproject

The Capital Investment Plan (CIP) of Kaliakoir Municipality lists a number of main roads, drains without branch drains. The PMU-MGSP of BMDF along with Executive Engineer of Kaliakoir Municipality has made field visits and evaluated existing drainage conditions of the proposed subprojects.

(1) D-9 Construction of drain starting from Kaliakoir Bazar to Turag River (575meter)

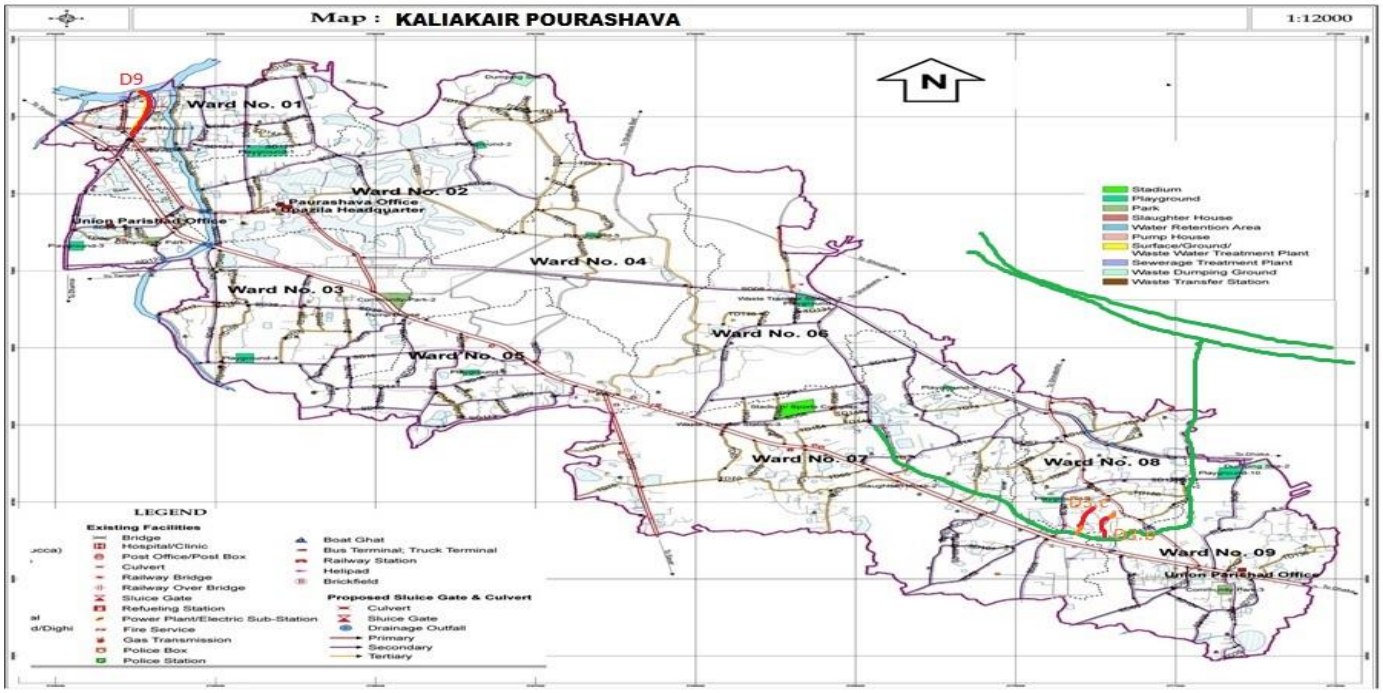
At present, the existing drain at Bazar area at both sides of the road is not functional and blocked by municipal solid waste. A portion of 60 meters (Chain. 110-170m) of drain has not constructed at west side due to scarcity of vacant land and to continue the drainage system a cross drain has been constructed and connected to the drain of east side. After 60 meter distance another cross drain has been made and connected with the existing west side drain where no complete outfall.
The existing drains are narrow, damaged, discontinuous and blocked. Thus, existing drain does not functioning properly to drain off the storm water. Moreover, during monsoon period, heavy and continuous rainfall causes delay discharge of the storm water. Therefore, delay discharge of the storm water creates drainage congestion and water stagnation at adjacent roads which hampers the normal traffic operations by damaging the roads, daily lives and livelihood of the influence area individuals. To improve the drainage congestion, construction of proposed RCC drain is needed with outfall in Turag river.

Observations and impact:

- There are 4 electric wooden poles are on the drain alignment which have to be shifted before construction works.
- A number of floating vendors sits on the drain alignment need to be relocated
- Existing drain has to be dismantled with following safety measures
- Debris should be used for landfilling or any other reuse purpose.
- Drain should be covered by slabs
- There is no tree that is need to be removed
- Traffic congestion will be occurred during construction period

- Water congestion will create if the construction work done monsoon season

Comments: This drain may be considered for construction which will improve environmental condition of the Kaliakoir Bazar through draining of waste in all season and rain water in monsoon season.



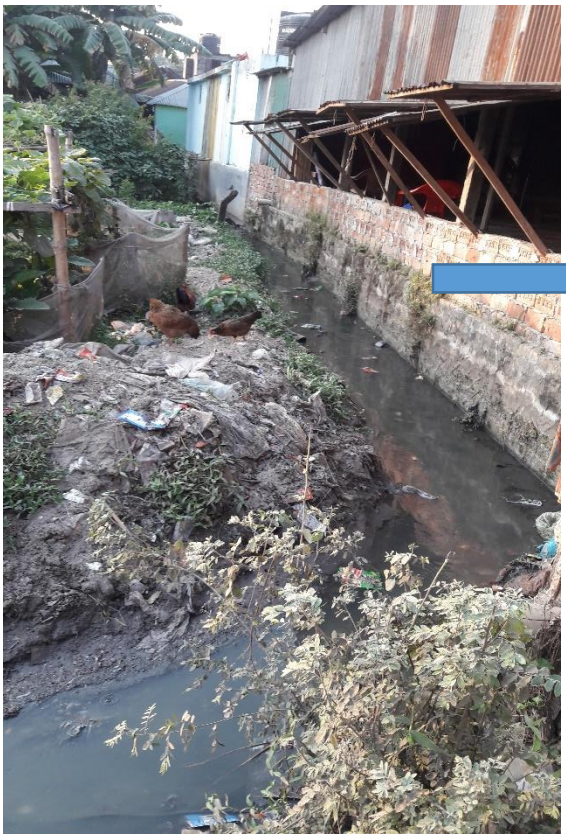
(2) D3-(6) Construction of drain from Board mill Bazar to CRDP Khal via Amena House (320 meter) at Munshir tek under Ward no.08:

This is a branch drain which is connected with CRDP khal. The total area is residential and fully unplanned areas having very narrow roads and spaces between two adjacent houses. Modina Tank Company has built a section of pucca drain (30 meter) adjacent to their labor colony through which domestic waste water passes through this drain. The remaining drain is earthen and almost filled

by solid waste. To get rid from the waste water congestion, north side household owners has willingly broken a part of their houses to provide space for drain construction. There is also small passage (culvert) to pass water from north side to south to CRDP khal.

Observations and Impact:

- It will be difficult to mobilize construction materials due to internal road communities
- Drain should be covered by slabs
- Work should start from outfall end
- Level of drain should be maintained so that backflow from CRDP khal cannot be entered.
- Awareness would have to be raised among dwellers for not to through any solid waste and toilet lines into the drain.
- No trees are there which to be felled.



Comments: This drain may be considered for construction which will improve environmental condition of the Ward no.-08 (Amena House area).

(3) D3(C) - Construction of Drain from Board Bazar to Azahahar Ali Police (200 meter)

The above proposed drain is a big concern from environmental side as water logged for long time behind the narrow spaces of closely built areas (houses) where the spaces are fully filled up by organic and inorganic solid waste and waste water. The proposed drain width is too narrow that a construction worker will face difficulties during movement with head load. Moreover, the proposed drain is not suitable for earth excavation and other constructions for proposed drain. The drain is truly required for the adjacent dwellers of Azahar Ali Police house area and can be considered for construction under BMDF.

Narrow space in between 2 houses which is full of solid waste and waste water. D3(C)

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SUMMARY OF SUBPROJECT-RELATED IMPACTS AND BENEFITS

The following table presents a summary of the potential impacts to natural, social, economic, and cultural resources as a result of the proposed drain improvement projects.

Impact Category	Impact Assessment
Land Use	• Existing land use adjacent to the drains will not change as a result of the subproject (but the land value will be increased).
Site Clearing Work	• Due to limited spaces near the proposed drain, it will be difficult to stake construction materials in a large quantity. Moreover, every possibility of traffic congestion during construction period at road side. Night time should be selected for avoiding traffic congestion work.
Noise	• Moderate adverse impacts to adjacent residential and commercial areas, during construction works. • Change in noise levels will not exceed State regulatory thresholds at any location

Tribal People	• No minority, or tribal populations exist on site or within the immediate area and, therefore, no impacts will fall on such populations. The subproject will not adversely impact the character of the community surrounding the roadway.
Air Quality	• No measurable impacts are anticipated
Water Quality	• Though, the drains are designed only for the storm water; however, storm water may carry wash-out materials which may disturb the aquatic environment of the outfall. In addition, dumping of solid wastes, household wastewater into the drain and illegal toilet connections may create pollution in the aquatic environment.
Threatened and Endangered Species	• There is no threatened and endangered species in the subproject area. So, no impacts are anticipated to threatened or endangered species habitat.
Drainage Congestion	• Drainage congestion is major issue in the area. Moreover, erratic rainfall will make more worsen condition in the drainage system in the whole area.
Pollution of Construction Debris	• Improper collection and disposal of the generated wastes materials may degrade the quality of the surrounding environment and degrade the aesthetic value.
Benefit Category	**Benefit Assessment**
Smooth drainage	• Poor and earthen drainage system will be eliminated. Dwellers can move easily, environmental condition will be improved.
Water logging	• RCC drain will improve drainage facilities and prevent the accumulation of the stagnant water on the road surface. • This will prevent formation of muddy and slippery surface on the road.

ENVIRONMENTAL MANAGEMENT PLAN (EMP)

Environmental management is concerned with the implementation of the measures necessary to minimize or offset adverse impacts and benefit enhancement measures identified. In order to be effective, environmental management must be fully integrated with the overall project management effort. EMP and monitoring plans to be followed by the Kaliakoir Municipality which was approved by the BMDF for road and drain sub-projects.

Community Consultation: Community Consultation done with Mayor, local Councilor and local dwellers.

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Recommended by:

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